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Diagnosing Our National Disease: Trends in Income and Happiness, 1973 to 2004*

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An important paradox of the happiness literature is the apparent disconnect between economic growth and happiness, referred to as the "Easterlin Paradox." Although real income has grown over the last thirty years, happiness has stagnated or perhaps even declined. There are a variety of explanations for this. Some emphasize psychological factors, such as relative deprivation or growing financial dissatisfaction, whereas others emphasize the behavior associated with higher incomes, such as longer work hours and the trade-offs such hours entail for leisure, relationships, and health. Drawing on the cumulative 1973 to 2004 General Social Survey and using a sample of working-aged adults, this article demonstrates the complexity of these trends and suggests that once we consider multiple sources of satisfaction, trends in real income have less paradoxical implications. The principal force behind declining happiness has been a decline in the number of working-aged Americans who are married, as well as declining marital satisfaction. These trends, however, have been largely independent of trends in income. In fact, once marital factors are considered, the negative trend in happiness reverses direction, and economic factors emerge as the single most important force underlying growing happiness. This result reflects a number of things. First, contrary to speculation regarding growing financial dissatisfaction, trends in financial satisfaction have, in recent periods, overlapped with gains in real income. Relatedly, perceptions of relative income have increased, despite growing income inequality. Finally, there is no evidence for "overwork" among families, at least as applied to happiness. To be sure, families are working longer hours, and there are (occasionally sharp) trade-offs between work hours and assorted sources of well-being. Nevertheless, families are far from the point where their work patterns begin to compromise their happiness. Indeed, families are, if anything, approaching an optimum. Overall the results suggest that happiness is the net result of multiple factors, and much can be gained by focusing on economic improvements, as well as the objective and subjectively rational behaviors underlying these improvements.

The relationship between income and happiness invites a good deal of speculation. On the one hand, most evidence indicates that income and happiness are positively associated. This is perhaps unsurprising. Income is related to a variety of positive life outcomes, and, when describing the characteristics of a good life, most people identify income as a key component (Diener and Oishi 2000). Yet two other features of the relationship remain puzzling and are generally referred to as the "paradoxes of income." First, the relationship between income and happiness is characterized by diminishing returns. For example, those appearing on the *Forbes* magazine's list of wealthiest Americans report only slightly more happiness than the average American, and some, in fact, report being quite unhappy (Diener, Horwitz, and Emmons 1985). Although this pattern is consistent with theories emphasizing the declining marginal utility of income (Veenhoven 1991), it is paradoxical given the many opportunities wealth would ordinarily seem to provide. Second, and related to the first, the positive relationship between income and happiness found in the cross-section does not appear to hold over time. Real income has increased in the United States over the last thirty years, and, in a very real sense, the material conditions of life have improved (Templeton 1999). Nevertheless, happiness has, if anything, declined, a phenomenon now referred to as the "Easterlin

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paradox" (Blanchflower and Oswald 2004; Diener and Suh 1997; Easterlin 1995).

These two paradoxes of income have inspired a good deal of speculation. Some have proposed happiness-related indices of national well-being to be used instead of more conventional income-focused measures, such as gross national product (Diener and Seligman 2004). Yet the paradoxes themselves have received little empirical scrutiny. At best, scientists know the patterns, but not the mechanisms. And, in absence of any serious empirical discussion regarding mechanisms, the debate over why happiness has not increased remains wide-ranging. Some emphasize psychological factors, such as the persistence of relative deprivation. Others emphasize rising consumption needs, in particular the hunger for luxury-related positional goods. Still others emphasize the behaviors associated with economic growth, arguing that the income growth has come at the expense of leisure, relationships, and health. Many of these arguments, at least in their general form, are longstanding. More than a century ago in a letter to H.G. Wells, William James bemoaned America's "exclusive worship" of monetary success, which he identified, with great disgust, as our "national disease" (from letters collected in Skrupskelis and Berkeley 2003).

But is success, in fact, our national disease? Has our pursuit of wealth, in effect, derailed our pursuit of happiness? Even before an understanding of why happiness has not increased, we must understand whether financial satisfaction has, indeed, declined or whether Americans are, by way of longer work hours, trading higher incomes for other sources of well-being. In this article, I address these questions using high-quality longitudinal data and multivariate analyses. One reason for the lack of empirical scrutiny has been assorted data limitations. Most existing data sources do not collect information on key mediating pathways and, of those that do, few are administered over time frames sufficient for evaluating trends. Even when adequate data are available, studies tend to focus on bivariate relationships, rather than multivariate ones. This practice is illuminating but insufficient, especially for theory-building—there are many factors that influence well-being and, for some of these factors at least, there are countervailing trends.

Here, I use the cumulative 1973 to 2004 General Social Survey (GSS). Because the GSS is a repeated cross-section gathered over many years, it allows me to explore trends in an especially fine-grained fashion. Furthermore, the GSS provides relevant mediating variables, including work hours and assorted financial evaluations. Indeed, this set of variables is exhaustive in a critical sense—with these variables, I am able to explain the entire income-happiness relationship and, at the same time, explain why happiness has not improved over time.

THEORIES LINKING INCOME AND HAPPINESS AND EXPLAINING WHY HAPPINESS HAS NOT IMPROVED

The relationship between income and happiness is usually explained in terms of income allowing the individual to pursue courses of action and consume goods that improve well-being. However, as most scholars now recognize, this intuition obscures the actual complexity of the relationship. Rather than a more-or-less direct pathway from income to happiness, evidence reveals assorted indirect pathways (Johnson and Krueger 2006). Furthermore, a general theme of the income-happiness literature is that individuals make decisions regarding their material circumstance that, in effect, undermine their well-being. Below I outline three theories for understanding the income-happiness relationship: relative deprivation, declining financial satisfaction, and the overemphasis on work relative to other sources of well-being. For the present purposes, these three theories are important not only for what they reveal about the relationship between income and happiness, but also because they could potentially explain why happiness has not increased. Both relative deprivation and financial satisfaction fall under the more general category of judgment models.

Judgment Models

The effects of income may depend on judgments regarding whether that income is ade-

quate for maintaining a desired standard of living (Campbell, Converse, and Rodgers 1976). Judgment models refer to a general class of psychological processes wherein the individual evaluates an object relative to some standard. With respect to income, individuals derive a standard from multiple sources, including the income of others and their own material aspirations, which may shift over time. Although judgments of either sort can produce a discrepancy between income and happiness, specific models differ in matters of emphasis and some models may be better-suited for explaining trends in happiness (Michalos 1985).

Relative deprivation. The relative-deprivation approach is perhaps the most common judgment model (see Festinger 1954 for an initial statement). In this approach, the relevance of income for happiness rests with the status it confers rather than the consumption it allows. Above all, income is a marker of status, signaling merit to self and others. Thus, while a given level of income may be adequate from the standpoint of meeting basic needs, it might nonetheless fail to improve well-being if that income is perceived to be below some norm. Because happiness is positively related to personal income but inversely related to the income of others, perceptions of relative standing tend to remain constant over time, thereby deflating the gains in utility one might otherwise realize from economic growth.

Although compelling, the idea that relative deprivation diminishes well-being has received mixed support. The importance of social comparison hinges, of course, on one's choice of a reference group. Furthermore, the claim that downward comparisons increase unhappiness depends on the average psychological effect of a comparison. In both respects, there are complexities. For one, an individual's reference group is not determined by the environment alone, as is often assumed. Individuals select comparison objects among assorted possibilities based, in part, on personal needs (Wood 1996). Thus, choices often serve to support well-being. Furthermore, even allowing for motivated comparisons, the emotional consequences of a comparison are not intrinsic to its direction (Buunk et al. 1990). Comparisons with a person one admires can be inspiring, even if those comparisons are upward. By the same token, downward comparisons can be distressing, especially when they are made with someone with whom one identifies. These complications make it difficult to predict any kind of average effect of social comparison, especially one emerging from something as broad as economic growth. And, in this light, some argue quite flatly that social comparison can do little to explain why happiness has not improved (Veenhoven 1991).

Even so, income, as a particular domain of comparison, might be especially stressful. Furthermore, there are good reasons to expect that trends in perceived relative income are broadly predictable (see Duesenberry 1949). For one, comparisons in the domain of income are more likely than comparisons in other domains to be chronically salient. Wealth is an important feature of American culture, and individuals routinely devote a large amount of time to its pursuit. In addition, upward comparisons tend to be distressing when they occur in domains that are, by nature, competitive and occasionally zero-sum. Perhaps reflecting the unique status of income, the literature on relative deprivation largely suggests that upward comparisons are distressing (Frank 1999). And, for this reason alone, social comparison remains a popular explanation for a lack of a relationship between income growth and happiness.

Relative deprivation has also been used to explain declining happiness. Some argue that Americans are increasingly likely to see themselves as lower status in part because rising income inequality may distort perceptions of relative standing, typically pushing them downward (Wilkinson 1996). Despite these arguments, there is, in fact, very little evidence on trends in perceived relative income, so it remains unclear whether relative perceptions have increased, such that individuals are more likely to report above-average income (perhaps reflecting rising real incomes), stayed the same, which is what most scholars assume, or declined (perhaps reflecting rising income inequality).

Financial satisfaction. Other judgment models focus less on status and more on satisfaction. On their face, financial-satisfaction models provide a similar but perhaps more compelling framework. In particular, financial satisfaction may be better suited to explaining the paradoxes of income, especially since satisfaction speaks directly to adaptation. *Adaptation* refers to any mechanism that reduces the relationship between a stimulus, such as income, and an outcome, such as happiness. Financial satisfaction may be an especially good mediating mechanism. For one, the effects of financial satisfaction in mediating the income-happiness relationship are, in most studies, quite large (George 1992). Moreover, unlike relative deprivation, financial satisfaction does not suffer from the reference-group problem. The prevailing view suggests a powerful aspiration treadmill, such that aspirations change as fast as actual circumstance (van Praag and Frijters 2003). The net result is a weak association between financial satisfaction and income—individuals always have slightly less than they want. Consistent with this view, there is a good deal of evidence that material aspirations shift commensurate with wealth. For example, public-opinion surveys regarding the elements of a "good life" reveal that the number of goods one desires grows in a parallel fashion with the number of goods one already owns (Easterlin 2005a). Similarly, the income individuals report as necessary to "get along" in life is hardly stable and, above all, increases with income (Rainwater 1974).

As with relative deprivation, this argument has been extended to account for declining happiness as well. Although most of the above research shows that income is the principal force underlying financial aspirations, aspirations are shaped by more than personal circumstance alone. Several scholars emphasize the role of culture and the media in America's rising financial expectations. Along these lines, Frank (1999) argues for an increasingly status-focused culture, wherein the pursuit of luxury goods is increasingly important to self-respect. In a similar vein, Schor (1999) argues that Americans are more concerned with emulating the lives of the rich and famous. These perspectives predict declining financial satisfaction, net of changes in personal income, perhaps further diminishing well-being. To be sure, there is an emerging consensus that adaptation is often more incomplete that scholars used to imagine (see Diener, Lucas, and Scollon 2006). Yet this new research further begs the empirical question at hand: given aggregate changes in income, has adaptation been sufficient to eliminate any improvements in happiness or must we consider some other factor?

Overwork and the Systematic Underinvestment in Leisure

Despite their differences, the above models are, in essence, psychological, in the sense that they focus on the judgment of income and emphasize how standards for evaluating income change systematically with rising income-levels or time. These models have little direct concern with the behavior associated with earnings or how that behavior might compromise well-being. Broadening the scope of economic approaches to happiness, a different approach emphasizes the trade-offs individuals make in pursuit of higher income. This approach is premised on two ideas: one, that individuals hold various misconceptions regarding the actual determinants of happiness and, two, that when pursuing wealth, individuals make decisions that systematically yield unhappy results. This claim is part of a broader research agenda concerned with the assorted mistakes individuals make in trying to forecast their future (see Gilbert 2006 for a summary of affective forecasting).

Although public opinion might suggest otherwise, higher income is clearly not the only pathway to well-being (or even the most important). Explorations of the determinants of happiness often arrive at a striking degree of consensus regarding the key elements, which ordinarily include financial security, a satisfying family life, and good health. Research also finds that some of these elements are more subject to adaptation than others. Specifically, so-called *intrinsic* needs, such as those for affiliation, self-determination, and good health, usually provide lasting

psychological benefits, whereas the benefits of *extrinsic* needs, such as those for material accumulation and status, tend to fade over time (Deci and Ryan 2000; Frederick and Loewenstein 1999). This discontinuity occurs, in part, because aspirations regarding extrinsic needs change more in response to circumstance, thereby allowing people to adjust to some conditions more readily than others. Most people aspire to good health and a happy marriage, for example, regardless of whether they in fact have them.

With this in mind, some argue for discontinuities between the satisfaction of extrinsic needs and the satisfaction of intrinsic needs—that is, in pursuing happiness, individuals reach for the former at the expense of the latter. This idea is popular in explorations of time-allocation, especially as they relate to trends in work hours. In particular, some argue that as individuals spend increasingly long hours in the labor force they spend less time pursuing intrinsic needs, the net result of which is declining happiness (Kasser 2000). This also explains why happiness has not increased even as real income has improved. Of course, this might not occur if those who pursue higher income derive more satisfaction from their money than they do their friends. Furthermore, it might be the case that Americans are not overly concerned with income and, in fact, behave in a fashion entirely consistent with maximizing their well-being. Indeed, the notion that individuals pursue wealth at the expense of happiness remains controversial precisely because of its apparent irrationality when considering a revealed preference approach—that is, if individuals are aware that overwork diminishes well-being and are rationally able to select their own behavior, why do they continue to work well past the point at which they derive the maximum possible happiness? There are many answers to this question. Certainly growing work hours could reflect the growing demands of employers more than the choices of employees. Yet scholars interested in happiness usually turn first to errors and biases. If individuals hold misconceptions about the determinants of happiness—in particular, if they believe, as many do, that income is the single most important pathway to well-being—they may overallocate in labor and underallocate in family, friends, and health, without much insight regarding their misdirected actions (Frank 1999; Frey and Stutzer 2004).

Although not supported by any direct evidence, the idea that Americans are increasingly allocating their time in an ineffective manner is supported by assorted pieces of indirect evidence. At a basic level, we know that Americans overvalue income relative to other demonstrable contributors to happiness. In studies asking respondents to list the key ingredients to happiness, income consistently ranks high, often higher than family or health (Cantril 1965, but see Kasser and Ryan 1993 on finances vs. self-acceptance among college students). In the same vein, there is some evidence linking materialism to impaired relationships. Sheldon and Kasser (1995) find that those oriented toward extrinsic goals, including wealth accumulation, tend to have more conflict-ridden relationships with family and friends.

Perhaps even more compelling for the present study, survey data reveal the kinds of trends and value-shifts that might deflate happiness over time. From the early 1970s to the mid-1980s, the stated importance of private materialism increased sharply, while the importance of self-fulfillment—indicated by support for things such as finding "purpose and meaning" in life—declined (Easterlin and Crimmins 1991). Likewise, McPherson, Smith-Lovin, and Brashears (2006) find an increase in social isolation between 1985 and 2004, and speculate, as have others (Putnam 2000), that this increase is partly due to growth in work hours among families. This confluence of factors may be sufficient to produce behavior that appears irrational with respect to the actual determinants of well-being. However, the idea that Americans allocate time in suboptimal ways has not been fully evaluated. In fact, we know little about the relationship between work hours and happiness, let alone the relationship between work hours and various other contributors to happiness.

Research Aims

This lack of empirical analysis represents a more general problem in the income-happiness literature. The field has a number of well-established theories for explaining why happiness has not increased even as real income has grown and each has received at least some empirical support. Yet few scholars have tested one theory against the other. In this light, it remains unclear which theory is most important for understanding trends and we are left with a cluttered field of contending theories. My empirical analysis is devoted to understanding why happiness has or has not changed over time in response to changes in income. In answering this question, I first address the empirical viability of each of the three theories discussed above and then apply these theories to understanding trends in happiness.

DATA AND METHODS

I use the cumulative 1973 to 2004 General Social Survey (GSS) (Davis, Smith, and Marsden 2004). The GSS is one of the most well-regarded and influential data sources in the United States. The survey is conducted face-to-face and is representative of the non-institutionalized adult population of the United States. Because the GSS has been fielded on a regular basis since the early 1970s, and because it has maintained a constant question wording for its key items, the data are especially useful for evaluating trends. Although longer periods of time would allow a more fine-grained investigation—capitalizing on long-term swings in economic performance—the period covered here has been the focus of much of the debate, at least in the United States. The GSS was fielded every year in early waves and every other year thereafter. It has maintained a response rate around 77%.

Key Variables

Appendix Table A describes the key variables. The table presents the years and samples in which each of the items appeared, as well as a basic description of the survey questions. The present study is concerned with evaluating trends over time, so the bulk of the analysis focuses on questions asked repeatedly and consistently. This limits the set of explanatory variables, but the ones I include are, as noted, sufficient to explain the income-happiness relationship and, thus, sufficient for testing the above theories. To bolster claims regarding potential trade-offs between work and happiness, I also explore several questions that appear more occasionally. For example, in Table 2, I explore indicators of the size of one's core discussion network, as well as satisfaction with friendships. These other questions allow me to evaluate potential trade-offs between work hours and other potential sources of happiness with more inferential precision. However, when questions are not asked regularly, they cannot shed light on trends in happiness. For the part of the analysis concerned with such trends, I focus on marital happiness and health, which, as I show, have powerful relationships with overall happiness.

Happiness. The GSS happiness question is among the most common in the literature. It asks: "Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?" This single item has some limitations. It purports to measure stable levels of overall happiness, but is subject to relatively minor day-to-day events (Schwartz and Strack 1999). In addition, it is sensitive to situational factors, including survey administration, as discussed below and explored in detail in the regression models. Nevertheless, this item generally provides a meaningful summary report of overall happiness and is sufficient for testing key ideas in the literature. For one, individuals have little difficulty answering the question: item nonresponse for the happiness question in the GSS is less than 1%. Furthermore, there is a high level of convergence between single-item measures of happiness, such as this one, and other, more sophisticated measures of well-being (Diener 1984; Diener, Suh, Lucas, and Smith 1999; Fordyce 1988). Finally, there is remarkable consistency across studies in the key contributors to vari-

ance in the question, suggesting that the happiness scores used here are broadly comparable across different social groups.

Income. The GSS asks respondents to report their family income using predefined income categories. Because of inflation, these categories are periodically adjusted. For example, in 1973, the top category was $30,000 or more, whereas in 2004 it was $110,000 or more. Using midpoint values of the categories, along with predesignated values for the topmost categories, the GSS includes inflation-adjusted real-income values (set at 1986 dollars). As is common in public opinion surveys, about 10% of the GSS sample did not report their family income. Because those who fail to report income tend to be different from those who do not, missing values were imputed using a linear regression equation. This equation contained year, age, education, sex, race, marital status, and employment status.

Financial judgments. Two items comprise my financial judgment measures. First, respondents were asked about their financial satisfaction: "So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation, more or less satisfied, or not satisfied at all?" Second, respondents were asked to evaluate their relative financial standing: "Compared with American families in general, would you say your family income is far above average, below average, average, above average, or far above average?" The former is modeled as a continuous variable, whereas the latter is modeled using a series of dummy variables, with "average" as the reference category. As shown shortly, the negative effects of downward comparisons are far greater than the positive effects of upward comparisons, a result that has implications for understanding trends in happiness.

Work hours. The GSS asks respondents who are currently employed to report the number of hours per week they usually work. The GSS also asks respondents to report the usual work hours of their spouse. Responses to these two questions were summed to create a variable for total family work hours. Because I expect trade-offs between work hours and happiness, models that include work hours also include a term for work hours-squared. The inflection point of these terms—that is, the point where the nonlinear relationship reverses direction—represents the "optimum" with respect to well-being. To explore the idea of trade-offs further, I also explore the relationship between work hours and health and marital happiness, the two most important "compromises" thought to lie behind rising incomes.

Trade-offs related to work hours: health and marital happiness. Respondents were asked whether their own health, in general, is excellent, good, fair, or poor. Like self-reported happiness, self-rated health has some limitations in being general, but still provides an excellent indicator of overall morbidity. Self-rated health predicts mortality exceptionally well, even better than many "objective" health indicators (Idler and Benyamini 1997). More important for this study, self-rated health also predicts happiness better than physician ratings (Okum and George 1984).

Respondents were asked to evaluate the happiness of their marriage. They were asked, "Taking things all together, how would you describe your marriage? Very happy, pretty happy, or not too happy?" From this item, in combination with a marital status variable, a series of dummy variables were constructed: not married (the reference category), a very happy marriage, a somewhat happy marriage, and an unhappy marriage. Controlling for marital happiness, so measured, could distort trends in overall happiness. In GSS survey administration, the two questions are asked in close proximity to each other, usually with the latter preceding the former. This order artificially inflates the correlation between the two, such that reported happiness is higher for married persons when marital happiness is asked prior to overall happiness (Schwarz and Strack 1991; Smith 1990). Because this correlation will also distort the mediating effects of marital happiness in the income-happiness relationship, I explicitly estimate the effects of

word ordering. In the 1972 and 1985 waves, as well as sections of the 1986 and 1987 waves, the usual question order was reversed. This allows me to empirically estimate the impact of question ordering on the marriage-happiness relationship. I then use these estimates to see what would happen to trends in happiness if the effects of marital happiness were constrained to their (presumably) unbiased levels.

Roadmap and Empirical Strategy

The figures and models are sequenced to address this manuscript's key question: why has happiness not improved despite gains in real income? This is an over-time aggregate question, but it requires understanding cross-sectional processes at the individual level. The models presented below, thus, move progressively from (i) exploring the relationship between income and assorted mediating mechanisms at the individual level (Figure 2 and Tables 1 and 2), to (ii) exploring trends in these mediating mechanisms (Table 3), to (iii) explaining overall trends in happiness using the three mediating mechanisms (Tables 4 and 5). As I show, some mediating mechanisms cannot explain why happiness has not improved because they do not trend in the correct direction, nor can assorted trade-offs between work hours and other sources of well-being, given that Americans have moved closer to an optimum, rather than further from it.

Some comments are necessary regarding the regression models. As noted, the income-happiness relationship is non-linear, characterized by a declining association at progressively higher levels. One method for modeling such a relationship is to use the natural log of family income, assuming that proportional changes matter more than absolute ones. Another is to model income as a series of dummy variables. However, income is a continuous variable, not a categorical variable, and the literature suggests that the mediating pathways found at lower levels of income are not the same as those found at higher levels. This discontinuity is important to respect given that it provides clues regarding why happiness has not increased over time. I specify income using a spline function. An income spline models the effects of income as a piecewise linear function of separate covariates (Marsh and Cormier 2002). In this analysis, income is specified as three separate segments, corresponding to income tertiales, with each segment knotted, by assumption, with the segment preceding it. Three equally spaced segments were selected to approximately reflect income-effects among upper, middle, and lower class groups. Thus, the first spline represents the function for the lowest values of income to the first tertiale, the second from the first to the second, and the third from the second to the highest value. So specified, these coefficients can be interpreted as the linear effects of income at each tertiale. Given the diminishing returns to happiness associated with income, I expect positive and significant coefficients for each of these three segments (income is positively associated with happiness) but of progressively smaller size (reflecting diminishing returns). I also use a two-piece spline function for estimating trends over time. Here, the knot is set to reflect a u-shaped trend in happiness, whose inflection I document below using a semi-parametric technique.

The models presented in Tables 4 and 5 are estimated using Tobit regression. As discussed shortly, most Americans report being happy. Indeed, in 2004, a third of Americans reported being "very" happy. It is possible that there remains a good deal of heterogeneity in this category that would have been observed had the response categories been expanded. There is, thus, likely to be a distribution in actual happiness among respondents who report simply and categorically being "very" happy. This, in turn, can lead to inconsistent estimates (Long 1997). Given this possibility, I use Tobit regression, which adjusts for potential right-censoring in happiness by assuming a distribution surrounding the censored response category (which ordinary linear regression does not). Although the resulting coefficients are adjusted for censoring, they can be interpreted in the same fashion as a linear model.

Although the GSS is nationally representative, students and retirees were eliminated from the analyses. In general, research finds

that the correlation between income and financial satisfaction is strongest among the middle-aged, owing in part to the fact that family income is a poor indicator of financial resources among the young and old (George 1992). Furthermore, the mediators of the income-happiness relationship are thought to vary between age groups, with health playing a much more important role among older persons. Although restricting the sample to working-age adults limits the scope of the results, it allows for greater fidelity with the literature.

A Note on Magnitude

Most of the relationships described below are quite small, even when statistically significant. The relationship between happiness and real income, for example, spans only .4 units (on a three-unit scale), which is less than a standard deviation (.63). Similarly, happiness declined between 1973 and 1994 by no more than .06 units. This is not unusual—in fact, these patterns are consistent with previous research. For example, the correlation between income and happiness found here is very close to that found in the World Values Survey (Diener and Oishi 2000). Likewise, the trends in happiness found in the GSS are similar to those documented elsewhere. The key point is not the magnitude of these relationships per se, but, rather, whether my models are capable of explaining trends in happiness, such as they are. In this regard, the models are sufficient. Furthermore, as I show shortly, the modest bivariate correlations are due, in part, to more complex multivariate patterns. Trends in happiness are, in effect, suppressed by other trends. In general, the results are entirely consistent with existing theory and interpretable using its key concepts.

RESULTS

The analysis begins with two multiple-panel figures summarizing basic patterns. Figure 1 displays four patterns: the relationship between real family income and happiness, trends in income, trends in happiness, and trends in total family work hours. Rather than presenting a scatterplot, each panel displays a locally-weighted smoothed line, based on Lowess regression (locally weighted scatterplot smoothing) (Cleveland 1979). Lowess regression fits bivariate linear regression models to small local subsets of data (here 80% of the data are used for each point), from which a continuous function is then compiled using weighted regression. Lowess regression is useful for summarizing bivariate relationships in a flexible manner without imposing a restrictive functional form, giving undue weight to minor deviations in a pattern, or presenting an overly dense scatterplot. From this semiparametric exploration, the regression models move to far simpler parametric specifications.

Among other things, Figure 1 reveals a reversal in the happiness trend, the first sign—of several more to come—of an alignment between trends in income and trends in well-being. Two things are important to appreciate, as they are consistent with previous research. First, the relationship between income and happiness, while positive, diminishes at higher levels. Second, trends in happiness do not reflect trends in real income, at least not in any obvious way. Despite gains in real income throughout the 1980s, happiness declined from 1973 through the mid-1990s. After that, happiness began, somewhat suddenly, to increase.[1] This result is consistent with both the Easterlin paradox and research showing a slight positive increase in happiness in developed countries, although it is important to note, once again, that the present study is limited to working-age adults, which might account for some differences between studies (see Veenhoven and Hagerty 2006). Given the positive relationship between income and happiness, this late-period increase might very well reflect real economic growth. Adding to this possibility, total family work hours declined somewhat after the mid-1990s, perhaps suggesting a softening of trade-offs between work hours and well-being. Nevertheless, trends in happiness prior to 1994 are more complex and clearly cannot be

[1] To avoid, for the moment, confounding trends in real income with other demographic trends, the panels displaying trends in real family income and trends in total family work hours are restricted to married respondents. The regression models, however, use the full sample.

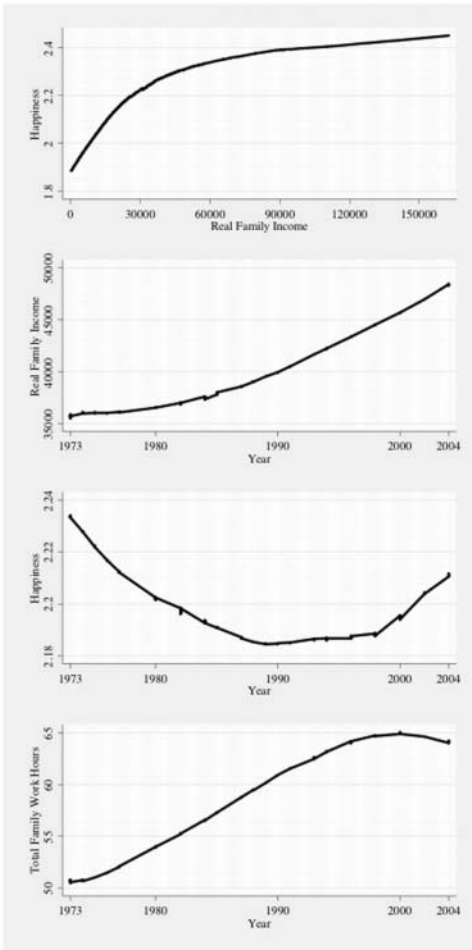

FIGURE 1. Key Patterns in Happiness and Real Family Income, 1973 to 2004 General Social Survey

explained by trends in real income alone. These trends might, instead, reflect trends in the three mediating mechanisms discussed above.

Potential Mechanisms Mediating the Income-Happiness Relationship

Figure 2 turns to the key mediating variables for the income-happiness relationship. The figure presents the relationship between real income and each of the mediating variables. Recall that the theories outlined above suggest a weak relationship between income and several of the mediating variables or a relationship that diminishes with increasing income. For example, income should not have an especially strong association with financial satisfaction, given adaptation. For Figure 2, three things are important to appreciate. First, there is no mediating variable for which the relationship reaches a true plateau. The highest expected value is always found at the highest level of income. Second, not every relationship is characterized by equally steep diminishing returns. The slope between income and financial satisfaction, for example, diminishes very slowly, as does the slope between income and perceived relative status. The former is not entirely consistent with the idea of adaptation and allows for the possibility that financial satisfaction has increased with improvements in real income. Third, all the relationships are not equally strong, which suggests that understanding happiness, including its trends, requires more than understanding income and its correlates. In fact, the relationship between income and marital happiness is very weak (.076). Table 1 presents correlations between the log of real family income and each of the four variables. The largest correlation is between income and perceived relative income (.512), followed by financial satisfaction (.291), self-rated health (.239), and, a distant forth, marital happiness (.076). Taken together, these patterns suggest that for purposes of explaining why happiness has not increased, marital happiness provides an especially plausible mechanism: marital happiness is only weakly correlated with income. By contrast, income does seem to buy financial satisfaction and a more secure sense of status, and there is little in the way of diminishing returns in this relationship. Are there, however, trade-offs between work hours and other sources of happiness?

Table 2 focuses on the extent to which individuals make trade-offs between work hours and happiness, both directly and through other potential sources of well-being. The table presents two linear regression models for each of six outcomes. The six outcomes include happiness, but also several contributors to well-being, including health and marital happiness, which I use in Tables 4 and 5. As noted above, the remaining indicators of social integration are used to illustrate the trade-offs between work hours and relationships. However, because they were measured in only a few years, they are not included in

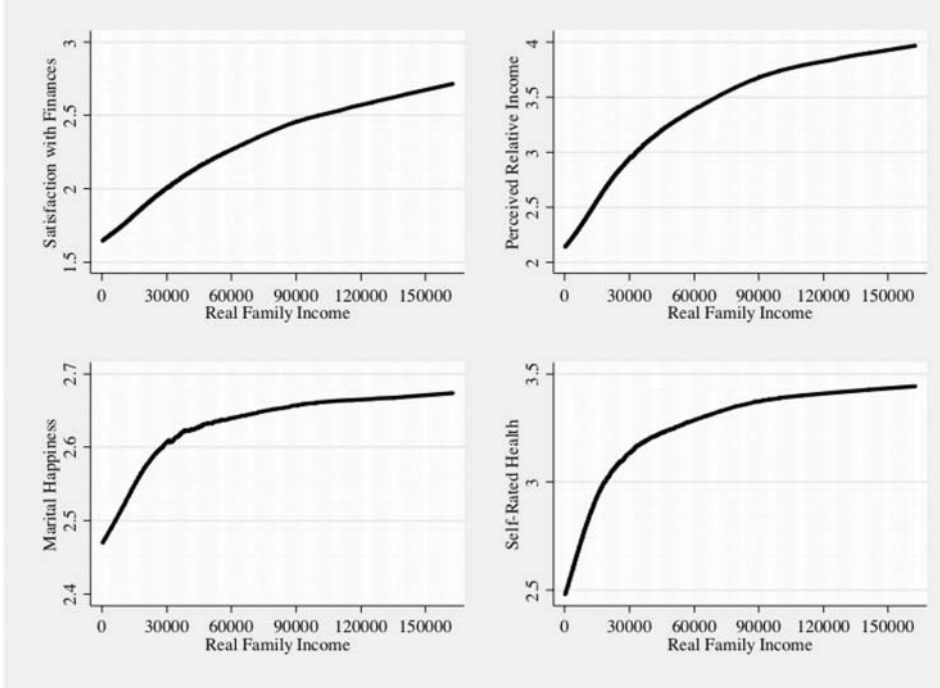

FIGURE 2. Relationships between Real Family Income and Key Mediating Variables, 1973 to 2004 General Social Survey

TABLE 1. Correlations between income and key mediating variables, 1973 to 2004 General Social Survey

	Satisfaction with Finances	Perceived Relative Income	Marital Happiness	Self-Rated Health
ln(Income)	.291	.512	.076	.239

the regression models in subsequent tables. Two sets of coefficients are presented for each outcome: those for total family work hours and those for income. Work hours are modeled using a linear and quadratic term. The inflection point implied by these two coefficients is also presented. This point is calculated by solving for when the derivative is zero, prior to rounding the coefficients (which accounts for slight differences between the coefficients, as presented in the tables, and the inflection points).[2] The work-hour coefficients have been carried to an additional decimal point for added precision. The inflection point can be interpreted as the empirically derived "optimal" level of work hours in terms of the outcome: assuming an inverted u-shaped function, happiness tends to increase with work hours up to the optimum, but declines thereafter. The first model explores work hours alone, while the second adds income. I expect the point of inflection to shift to lower values once income controls are introduced—that is, if work hours were independent of income, the trade-offs between work hours and happiness would be sharper.

The results generally support the idea that long work hours compromise well-being, as expected. Thus, work hours might help to explain why happiness has declined, given that work hours within families have generally increased. But this conclusion is tempered by three additional findings. First, the point of inflection often exceeds 80 hours per week,

[2] Consider the following example, from the first column of Table 2, carried to additional decimal points: Abs(.0510947/(2 × –.0029769)) × 10 = 85.818513

TABLE 2. Regression of Happiness, Social Support, and Health on Work Hours: 1973 to 2004 General Social Survey

	Happiness		Marital Happiness†		Self–Rated Health	
Family Work Hours/10	0.0511**	0.0357**	0.0200**	0.0104*	0.1179**	0.0827**
	(0.0036)	(0.0037)	(0.0045)	(0.0046)	(0.0046)	(0.0047)
(Family Work Hours/10)^2	–0.0030**	–0.0024**	–0.0011**	–0.0007	–0.0067**	–0.0051**
	(0.0003)	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Income Spline						
First Tertiale		0.071**		0.040		0.224**
		(0.013)		(0.021)		(0.016)
Second Tertiale		0.070**		0.051**		0.105**
		(0.008)		(0.009)		(0.010)
Third Tertiale		0.013**		0.007**		0.030**
		(0.002)		(0.002)		(0.003)
Point of Inflection	86	76	93	76	88	81
Years	1973–2004		1973–2004		1973–2004	
Observations	26,352		15,160		26,352	
	Size of Discussion Network		Frequency Socializing with Friends		Satisfaction with Friendships	
Family Work Hours/10	0.0876**	0.0508	0.0702**	0.0260*	0.0642**	0.0359**
	(0.0258)	(0.0269)	(0.0122)	(0.0126)	(0.0096)	(0.0100)
(Family Work Hours/10)^2	–0.0059**	–0.0048*	–0.0056**	–0.0036**	–0.0037**	–0.0022*
	(0.0022)	(0.0023)	(0.0011)	(0.0011)	(0.0009)	(0.0009)
Income Spline						
First Tertiale		0.082		0.291**		0.213**
		(0.088)		(0.043)		(0.035)
Second Tertiale		0.151**		0.131**		0.065**
		(0.056)		(0.026)		(0.021)
Third Tertiale		0.079**		0.025**		0.014*
		(0.017)		(0.007)		(0.006)
Point of Inflection	74	53	62	37	87	81
Years	1985, 1987		1974–2004		1973–1994	
Observations	2,722		13,990		14,005	

* $p < .05$; ** $p < .01$ (standard errors in parentheses)

† Sample restricted to married respondents

Note: All models also include controls for year, age, sex, and race. Apart from the marital happiness models, all models also include controls for marital status.

which is far from typical for the average American family. Recall from Figure 1 that the average family is working more in 2004 than they did in earlier eras, but the average work week has exceeded 65 hours only once in the entire period explored here. If anything, Americans are moving closer to the optimum, not further from it. Second, the shape of the trade-off differs between the mediating variables in ways that could promote well-being or, at the very least, suggest that Americans make some sacrifices sooner than others. In particular, the trade-offs are sharper with respect to the *opportunity* for support than with respect to the *evaluation* of support. For example, the optimum point for the frequency with which individuals socialize with friends is less than the optimum point for reported satisfaction with those friendships. Thus, individuals can remain satisfied with their friends, even when they spend less time with them. Likewise, individuals who work exceptionally long hours report somewhat smaller discussion networks, but this reduction in the size of their network does not appear to prevent them from deriving satisfaction from what connections they have. Importantly, of the six outcomes explored in the table, the inflection point for marital happiness

TABLE 3. Trends in Mediating Variables, 1973 to 2004 General Social Survey

	Perceived Income Relative to Average			
	Far Above Average	Above Average	Below Average	Far Below Average
Year 1973 to 1994	0.237**	0.144**	0.037	0.064
(in decades)	(0.078)	(0.029)	(0.027)	(0.051)
Year 1994 to 2004	–0.226	–0.089	0.015	0.168
(in decades)	(0.203)	(0.085)	(0.078)	(0.139)
Income Controls		Yes		
Observations		26,352		

	Satisfaction with Finances	Married	Marital Happines†	Self–Rated Health
Year 1973 to 1994	–0.029**	–0.502**	–0.031**	0.048**
(in decades)	(0.007)	(0.022)	(0.007)	(0.008)
Year 1994 to 2004	0.032	–0.172**	0.046*	–0.046*
(in decades)	(0.020)	(0.060)	(0.022)	(0.023)
Income Controls	Yes	No	No	No
Observations	26,352	26,352	15,160	26,352

* $p < .05$; ** $p < .01$ (two-tailed test; standard errors in parentheses)

† Sample restricted to married respondents

Note: The perceived relative income model uses multinomial logit regression. The marital status model uses logit regression. The remaining models use linear regression. All models include controls for age, gender, and race. Relative standing and satisfaction with finances models also include controls for income.

is the most advanced (in models that do not control for income), which, once again, suggests that patterns with respect to marital happiness are largely independent of income and its correlates. Third, in most cases income is positively associated with the outcome (the exception is, yet again, marital happiness, where the coefficient for the lowest tertiale is insignificant). Moreover, unlike for the effect of work hours, there is no evidence for a plateau in the income effect. Thus, higher income increases the size of discussion networks, improves health, and promotes satisfaction with friendships.[3]

Trends in the Mediating Mechanisms

Table 3 examines trends in the key mediating variables: perceived relative income, financial satisfaction, and, because of their relationship with work hours, marital happiness and health. In all the models, year is modeled using a two-covariate spline function with knots set to overlap with the trends revealed in Figure 1. The coefficients in the upper panel are from a multinomial logit model predicting perceived relative income. The four equations predict the likelihood of reporting the given category of relative income relative to reporting "average" income. The model controls for actual family income. As a result, the year coefficients can be interpreted as the per-decade change in the likelihood of reporting a given level of relative income, holding actual income constant. For the same reason, I also control for income when examining financial satisfaction.

Above all, Table 3 reveals countervailing forces, many of which are inconsistent with expectations derived from the theories described above. For example, between 1973 and 1994, Americans grew increasingly likely to report *above average* income. Yet, at the same time, Americans grew increasingly dissatisfied with their finances, and both marriage rates and marital happiness declined (marital status and happiness are here disen-

[3] Additional analyses reveal that the point of inflection for some of these variables becomes further advanced for more serious risks. For example, the point of inflection for the size of one's discussion network (a count, presented in the table) is much less than the point of inflection for having no confidants whatsoever (a discrete outcome, not presented). Similarly, the point of inflection for reporting "poor" health is more than 10 hours beyond the point of inflection found when self-rated health is modeled as a continuum (as it is in the table).

tangled in order to clearly demonstrate trends). Furthermore, some of these trends shifted after 1994, consistent with trends in happiness. After 1994, marital happiness began to increase, as did financial satisfaction (although not significant in the table, the 1994 to 2004 coefficient is significant if real income is not included in the model). Which of these trends is most important for understanding why happiness has not increased?

Explaining Trends in Happiness

Tables 4 and 5 attempt to explain trends in happiness. Table 4 presents seven models. These models suggest that the apparent stability of happiness amidst rising income is an artifact of countervailing trends. Model 1 begins with two key relationships: the decline in happiness found between 1973 and 1994 and the gradually decelerating relationship between income and happiness. The remaining models attempt to explain these patterns. Model 2 includes perceived relative income. Perceived relative income does little to explain trends in happiness—as noted above, perceived relative standing has, if anything, increased—but it does explain a large fraction of the income-happiness relationship, especially at lower levels of income.[4] In Model 3, financial satisfaction explains two-thirds of the remaining income-happiness relationship in the third tertiale. Financial satisfaction also explains about 34% of the decline in happiness between 1973 and 1994. Nevertheless, the negative trend in happiness remains significant in Model 3.

Model 4 presents a very different picture. Controlling for marital happiness (which also includes controls for marital status) reverses the trend in overall happiness. Were it not for declines in marital happiness between 1973 and 1994, overall happiness would have increased by about the same amount as it heretofore appeared to decline. Part of the reason for this reversal is the magnitude of the marital happiness-overall happiness relationship. The coefficients for martial happiness are remarkably large. To be sure, only those reporting "very" happy marriages are happier than those who are not married, but, even so, the difference between these two groups is rather striking.

As noted, one explanation for this association is simply that those who are asked about their marital happiness shortly before they are asked about their overall happiness are more likely to equate the latter with the former. To investigate this possibility, Model 5 includes two sets of marital status and happiness coefficients: the first is for the usual order of questions, where marital happiness is asked prior to overall happiness. The second is for the reverse order, which occurred in only a few waves of the GSS. The model reveals that the relationship between marital happiness and overall happiness is indeed inflated when marital happiness is asked first. The key question, however, is whether the usual question order—and its attendant bias—leads to an artificial trend in happiness. To investigate this possibility, Model 6 imposes parameter constraints on the marriage coefficients. The coefficients are constrained to their lower levels as found in the surveys with the reverse ordering, rather than their higher levels as found in the remaining waves of the survey (because the parameters are constrained, they have no standard errors). As expected, imposing these constraints reduces the positive trend in happiness somewhat, from the .027 to .020. Nevertheless, the trend remains significant. Model 7 controls for self-rated health and, thus, explores the role of potential trade-offs between work hours—which have propelled gains in real income—and health. With this model, I am able to explain the entire remaining income-happiness relationship.

Table 4 presents a puzzle seemingly at odds with the Easterlin paradox: the first year coefficient in Model 1 reveals declining happiness, whereas Model 5, with a different set of control variables, reveals, in an almost perfect mirror-image of the earlier coefficient,

[4] In addition, because the two coefficients for below-average income are much more negative than the two coefficients for above-average income are positive, the mediating effects of perceived relative income are greater at lower levels of income. For example, with controls for relative income, the coefficient for the first tertiale of income is reduced by 34%, whereas the coefficient for the third tertiale is reduced by less than 20%.

TABLE 4. Tobit Regression Models Explaining Trends in Happiness, 1973 to 2004 General Social Survey

	One	Two	Three	Four	Five	Six	Seven
Year 1973–1994	–0.028**	–0.029**	–0.019*	0.027**	0.029**	0.020**	0.014
(in decades)	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Year 1994–2004	0.043	0.048	0.035	0.038	0.031	0.036	0.054*
(in decades)	(0.025)	(0.025)	(0.025)	(0.023)	(0.023)	(0.023)	(0.022)
Income Spline (in $10,000)							
First Tertiale	0.171**	0.113**	0.096**	0.052**	0.052**	0.059**	0.001
	(0.018)	(0.018)	(0.018)	(0.016)	(0.016)	(0.016)	(0.016)
Second Tertiale	0.164**	0.115**	0.094**	0.029**	0.029**	0.039**	0.015
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)
Third Tertiale	0.026**	0.021**	0.007*	0.001	0.001	0.002	–0.002
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Perceived Relative Income [vs. Average]							
Far Below Average		–0.346**	–0.162**	–0.157**	–0.156**	–0.159**	–0.125**
		(0.027)	(0.026)	(0.024)	(0.024)	(0.024)	(0.024)
Below Average		–0.189**	–0.067**	–0.061**	–0.061**	–0.062	–0.049**
		(0.014)	(0.014)	(0.013)	(0.013)	(0.013)	(0.013)
Above Average		0.053**	–0.003	0.023	0.023	0.018	0.003
		(0.016)	(0.016)	(0.015)	(0.015)	(0.014)	(0.015)
Far Above Average		0.109*	0.068	0.071	0.072	0.067	0.040
		(0.043)	(0.042)	(0.039)	(0.039)	(0.039)	(0.038)
Satisfaction with Finances			0.291**	0.242**	0.243**	0.247**	0.219**
			(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Marital Happiness [vs. not married]							
Not Too Happy				–0.532**	–0.541**		–0.477**
				(0.037)	(0.039)		(0.036)
Pretty Happy				–0.090**	–0.089**		–0.063**
				(0.014)	(0.015)		(0.014)
Very Happy				0.642**	0.650**		0.630**
				(0.013)	(0.013)		(0.012)
Not Too Happy					–0.432**	–0.432	
(reverse question order)					(0.121)		
Pretty Happy					–0.100**	–0.100	
(reverse question order)					(0.036)		
Very Happy					0.547**	0.547	
(reverse question order)					(0.032)		

(continued on next page)

TABLE 4. *(Continued)*

	One	Two	Three	Four	Five	Six	Seven
Self-Rated Health							0.198**
							(0.006)
Constant	2.150**	2.248**	1.579**	1.633**	1.631**	1.624**	1.051**
Observations	26,352	26,352	26,352	26,352	26,352	26,352	26,352
Years	1973–2004	1973–2004	1973–2004	1973–2004	1973–2004	1973–1994	1973–2004

* $p < .05$; ** $p < .01$ (two-tailed test; standard errors in parentheses)
Note: All models also include controls for sex, race, and age.

rising happiness. The paradox, it would seem, depends on model specification. In this light, Table 5 turns to a different question: what led to these apparent gains in happiness, once marital happiness is considered? Table 5 employs a far simpler approach than Table 4, focusing only on mechanisms that might plausibly explain the increase. Model 1 provides the baseline, Model 2 controls for real income, and Model 3 adds employment variables. Thus, the model is shorn of the judgments and trade-offs usually invoked when explaining the Easterlin paradox. Comparing Model 1 with Model 2 suggests that real income alone explains a good deal of the positive trend in happiness. In fact, controls for real income reduce the happiness trend from 1994 and 2004 to statistical significance, and reduce the 1973 to 1994 trend by approximately 16%. Model 3, with controls for employment status and total family work hours, explains the remainder. In this model, neither trend in happiness is significant—no other covariates are required to explain the increase. In short, Table 5 reveals that economic opportunity alone—in form of higher income and more work hours—is sufficient to explain rising happiness.

DISCUSSION

The results of this study point to a rather unexpected alignment between economic behavior and happiness. Happiness has, indeed, declined in the United States, but this decline appears to have less to do with financial judgments or overwork than trends in marital status and satisfaction. Furthermore, the paradox of rising income and declining happiness does not appear to hold once marital factors are considered. After including these factors, overall happiness increased between 1973 and 2004. And this increase can be understood in a rather straightforward fashion, with little recourse, for example, to psychological judgments. Virtually all of the increase is attributable to rising income and growing labor-force participation. Furthermore, there is no evidence that individuals are working in ways that compromise well-being. Indeed, was it not for growing economic opportunity, the twenty-year decline in happiness found between 1973 and 1994 would have been a good deal more severe. By the same token, the especially strong increase in happiness beginning in the late 1990s appears to be due to gains in real income, complemented by changing perceptions of income. In particular, it was only during this period that trends in financial satisfaction aligned themselves with trends in real income—financial satisfaction improved in tandem with real income—a result that is perhaps especially surprising given the unusually strong focus in recent scholarship on America's hunger for luxury items, status, and wealth.

All this is not to say that any one of the three frameworks outlined in the introduction is entirely incorrect. It is merely to suggest that the direct pathway from income and happiness deserves more credit than it is usually given, especially for evaluating trends and, further, that traditional development indicators may in

TABLE 5. Tobit Regression Models Explaining Trends in Happiness, 1973 to 2004 General Society Survey

	One	Two	Three
Year 1973–1994	0.025**	0.021*	0.015
(in decades)	(0.008)	(0.008)	(0.008)
Year 1994–2004	0.061*	0.043	0.043
(in decades)	(0.024)	(0.024)	(0.024)
Marital Happiness [vs. not married]			
Not Too Happy	–0.552**	–0.608**	–0.608**
	(0.038)	(0.038)	(0.039)
Pretty Happy	–0.039**	–0.115**	–0.119**
	(0.014)	(0.014)	(0.016)
Very Happy	0.756**	0.667**	0.662**
	(0.013)	(0.013)	(0.015)
Income Spline (in $10,000)			
First Tertiale		0.116**	0.079**
		(0.017)	(0.017)
Second Tertiale		0.090**	0.084**
		(0.010)	(0.010)
Third Tertiale		0.019**	0.019**
		(0.003)	(0.003)
Employment			
Employed			0.052**
			(0.016)
Total Family Work Hours			0.031**
			(0.006)
Total Family Work Hours^2			–0.002**
			(0.000)
Constant	2.151**	2.100**	2.082**
Observations		26,352	
Years		1973–2004	

* $p < .05$; ** $p < .01$ (two–tailed test; standard errors in parentheses)
Note: All models also include controls for sex, race, and age.

fact correspond quite well with subjective well-being. Relative deprivation, for example, has a powerful relationship with well-being: net of actual income, those who believe their income is below average are much less happy than those who believe their income is average. Yet from the standpoint of declining happiness, relative deprivation is rather unimportant. In fact, Americans grew increasingly likely to report above average income between 1973 and 1994, even as their happiness fell somewhat. This result begs a number of questions, perhaps the most important of which is the source from which Americans derive their standards of comparison. Although social comparison is increasingly seen in terms of comparison relative to proximate and salient others, it is entirely possible that Americans derive their standards from personal past income as much as the putative current income of others. Similarly, financial satisfaction is strongly related to happiness and, as the above literature anticipates, does not track perfectly with trends in actual income. Between 1973 and 1994, financial satisfaction declined at approximately the same pace as marital happiness declined. Yet even with this growing financial discontent, financial satisfaction explains no more than 35% of the decline in overall happiness.

By the same token, scholars are correct to assert that there are trade-offs between work hours and well-being. These trade-offs are, in fact, pervasive across the many different elements that constitute a satisfying life. When married couples together work over 80 hours a week, they tend, in the process, to sacrifice their health and relationships. Nevertheless, families working in ways that compromise well-being are clear outliers—trends in the average American family tell a very different story. In fact, the typical American family is moving closer to the optimum, and, if anything, trends in labor-force participation have

propelled, not undermined, rising happiness. Notably, of the six outcomes explored in Table 2, marital happiness has the most advanced inflection point (93 hours, unadjusted for income), suggesting that dual-earner couples are, under most circumstances, happier than others and, furthermore, that such couples sacrifice their relationship with friends well before they sacrifice their marriage. This, too, is "rational" in the sense that the relationship between marriage and happiness is much stronger than that between friendship and happiness.

Future Directions

It is unusual for studies conducted in the United States to document an increase in happiness corresponding to a rise in real income. Yet the result found here is not at all inconsistent with results found in other countries. For example, there have been (small) increases in happiness occurring in tandem with a growing economy in Italy, Germany, Portugal, and Denmark (Diener and Oishi 2000, but see Veenhoven and Hagerty 2006). In tandem with these international studies, the results of this study push theory in two directions. First, scholars must reconsider the many potential sources of satisfaction, rather than an exclusive focus on income (see also Easterlin 2005b). Viewed cross-nationally, it is correct to say that there is no *overall* trend in the relationship between income growth and happiness. In fact, there are nearly as many countries for which happiness has increased as for which happiness has declined or remained stable (Diener and Oishi 2000). But this observation might obscure more than it reveals. The key point is not what this observation reveals about the relationship between income and happiness, but rather what this observation could suggest about the conditions that allow income growth to promote well-being. Because income is only one of many contributors to happiness, and because some of these other contributors are not strongly related to income, it is quite easy to suppress income's otherwise salutary benefits. Something of this sort appears to be occurring in the United States. As the fraction of Americans who are married declines, so too has well-being. But trends in marriage appear to have little to do with trends in income, and research must understand countervailing trends before we can isolate the impact of economic factors. The notion that research should think beyond income is ultimately in keeping with early work on the paradoxes of income. Easterlin's (1974) seminal work was meant to cast doubt on the idea that focusing on economic growth alone is the surest way to improve well-being. His view was not widespread at the time, and despite many well-received innovations in behavioral economics since then, it is not yet the prevailing view among mainstream economists or sociologists.

At the same time, this study points to the importance of considering relative deprivation further. An especially common explanation for declining happiness even amidst economic prosperity is that rising income inequality has deflated perceptions of relative income. Others have taken this point further to argue for the emergence of highly salient status markets wherein only a small number can truly be winners, while the remainder suffer from relative defeat (Frank 1999). Such markets almost certainly exist, but this general ideal cannot explain why, for the average American, perceptions of relative status have in fact improved. Future research will benefit from considering what specific interpersonal comparisons individuals make, as well as the other, non-interpersonal sources of financial evaluations. It is possible that perceived relative standing increasingly reflects comparisons with one's own financial status in the past, rather than the financial status of immediate others. Alternatively, individuals may be unable to separate personal gains in income from gains attributable to a robust economy, resulting in slight improvements in perceived relative status occurring with economic growth.

It may also prove useful to connect research on happiness to other streams in sociology and social psychology. Although happiness is in some respects a narrow outcome with an already established research tradition

and set of motivating questions, it has the potential to speak to a variety of other areas. Along these lines, happiness could speak rather directly to the sociology of emotions, where scholars have occasionally bemoaned the gap between social psychological theories and theorizing on the macrostructural level (Turner and Stets 2006). Much of the happiness literature is pitched precisely at this level, with a related focus on the structural and cultural conditions necessary for improving well-being. By the same token, the sociology of emotions has also grown concerned in recent years with the role of emotions in social exchange. In putting the "production of happiness" squarely in the family, much of the happiness literature speaks directly to how families trade in well-being, including how they trade-off income for other sources of satisfaction. By the same token, explorations of aggregate improvements in well-being might benefit from considering trends in other social and demographic variables. Along these lines, just as trends in marriage are important for understanding trends in income and well-being, so too might trends in immigration influence trends in happiness. Although this analysis provided controls for compositional shifts, these can be interrogated further.

Limitations

My analysis has four limitations. First, real income is an imperfect measure of economic growth and consumption. The goods available to a family depend, of course, on income, but also on savings, debts, gifts, and the price and availability of particular items. For my purposes, the effects of savings and wealth are especially important. Wealth is almost certainly related to the mediating mechanisms considered here, including family work hours. Furthermore, happiness began its sharpest increase in the early to mid-1990s, a time when there were great gains in investment wealth. To be sure, measuring wealth with any accuracy is difficult, and the best data for exploring trends in happiness are not the best data for exploring trends in assets. Nevertheless, wealth could be an important engine underlying recent patterns and should be considered further in future research. Wealth is also important to consider given that trends in wealth inequality have not been identical to trends in income inequality.

Second, this study explores a consistent measure of happiness, which is essential for evaluating trends, but it is possible that the culture surrounding happiness has changed in ways that cannot be detected easily in survey data. These changes are likely to be complex, even if rooted in a small set of underlying factors. We may have a more "therapeutic" culture, but this culture, to the extent that it exists at all, cuts both ways. On the one hand, individuals might be more likely to report unhappiness than in the past. Reporting experiences with negative affect—even severe depression—may be less stigmatizing than it once was. On the other hand, individuals might feel more compelled to feel happy, especially if the popular media is regularly encouraging them to cope and "lead a better life." This is a potentially fruitful avenue for future research, lying as it does at the cusp of social psychology and the sociology of culture.

Third, this study was unable to address issues of causality in a direct fashion. Although a great deal of research has focused on the relationship from income to happiness, an equally powerful relationship may run the other direction. Putting happiness front-and-center in a broader process, some authors point to the importance of positive affect for success in life, including a good job and a happy marriage (Lyubomirsky, King, and Diener 2005). In focusing on trends, this study was able to partially side-step this issue—it is unlikely, for example, that economic growth has been fueled by gains in happiness. Nevertheless, it is possible that genetic and social endowments shape happiness and economic behavior, thus complicating inferences regarding work, family, and friends. These issues deserve further attention, especially for research that is ultimately interested in discerning the most powerful predictor of happiness and the most rational means of promoting it.

Fourth, this study has not focused on heterogeneity in happiness trends. The u-shaped pattern initially motivating this study is a simple overall time trend. It is quite possible that this trend differs for different social groups, including men versus women, blacks versus whites, and the old versus the young. Furthermore, it is possible that the income-happiness relationship itself differs between groups. The meaning of income is important for understanding its effects, as noted above, and different groups could have very different understandings of wealth. That said, overall trends in happiness have been the principal fact motivating much of the literature. Furthermore, given the long-standing need to characterize a nation's level of economic well-being using a single concept, such as gross national product, it is important to understand that single concept's relationship with overall happiness. Related to this, this report was rather narrowly focused. The analyses focus on income and a handful of concepts reflecting the meaning of income and the trade-offs individuals might make in pursuit of wealth. This focus is in no way meant to suggest that other determinants of well-being are unimportant. Indeed, many other factors may be more important to well-being than income, if not for understanding trends. For example, race, age, and gender are used here merely as control variables, but their effects are, in fact, quite large. Those interested in explaining the most variance in happiness—which was not a goal of the present endeavor—would be well advised to look beyond income and its correlates.

CONCLUSION

One standard by which to judge economic prosperity is happiness. By this standard, America is not doing as well as it could. Yet, contrary to a good deal of recent speculation, there is little in the pursuit of material success that has, of its own accord, diminished happiness. Indeed, much to the contrary, material pursuits play an important role in sustaining well-being, especially when they are coupled—as is certainly possibly—with good health and satisfying relationships. Above all, this study indicates that the "paradoxes" of income may have been overdrawn. In fact, over the last thirty years, happiness would have declined a great deal more than it did were it not for gains in real income. This is not to say that all Americans are, under all circumstances, acting in ways to maximize their well-being. Nor is it to suggest that the pursuit of wealth never entails a shadow side, which commentators, like William James, are right to highlight. Rather it is to suggest that Americans may derive more satisfaction from income than psychological models sometimes allow and, moreover, they may do a good job on average of balancing a happy life.

This finding has broader implications, spanning happiness research and behavioral economics more generally. Recent years have seen a growing divide in the well-being literature. In light of the paradoxes of income, some have argued for a renewed focus on "objective" happiness, rather than subjective well-being (Kahneman 1999). In this framework, objective happiness is the happiness an observer would infer if that observer was given a complete record of all the experiences an individual had over a given period of time. According to this approach, subjective happiness is merely a poor approximation of objective happiness and, thus, should not be used as a guide to public policy. For example, policy makers should focus on fostering things like economic expansion, even if people do not report themselves any happier as a result. Income, after all, has a demonstrable and "real" relationship with a variety of good outcomes. On the other hand, others have argued that subjective reports of well-being, no matter how limited, are important in their own right. Indeed, the point is occasionally pushed to the point where subjective evaluations are seen as important apart from any basis in circumstance (Diener and Seligman 2004). It also lies behind systematic efforts to coach individuals toward more genuine and lasting well-being (Seligman 2002). The results of this study suggest that, in some domains, the two sides of this debate might have more in common than they think. The behavior of the average American

appears to be rational both with respect to material pursuits and subjective well-being. Income, health, and relationships are crucial to well-being—as most Americans appear to recognize—and there seems to be little in this empirical analysis to suggest that one has grown at the expense of the other.

Appendix TABLE A. Description of Variables, 1973 to 2004 General Social Survey

Variable	Years and samples	Description
Real Family Income	1973–2004 (a)	Family income in constant 1986 dollars
Total Family Work Hours	1973–2004 (a)	Usual number of hours per week at work for respondent and, when applicable, spouse
Happiness	1973–2004 (b)	"Taken all together, how would you say things are these days, would you say that you are very happy, pretty happy, or not too happy?"
Satisfaction with Finances	1973–2004 (b)	"We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation, more or less satisfied, or not satisfied at all?"
Perceived Relative Income	1973–2004 (b)	"Compared with American families in general, would you say your family income is far below average, below average, average, above average, or far above average?"
Marital Happiness	1973–2004 (b)	"Taking things all together, how would you describe your marriage? Would you say that your marriage is very happy, pretty happy, or not too happy?"
Health	1973–1977, 1980, 1982, 1984, 1985, 1987, 1988–2004 (c)	"Would you say your own health, in general, is excellent, good, fair, or poor?"
Satisfaction with Friendships	1973–1984, 1986, 1987, 1988–1994 (c)	"How much satisfaction do you get from your friendships, a very great deal, a great deal, quite a bit, a fair amount, some, a little, or none?"
Frequency Socializing with Friends	1974, 1975, 1977, 1978, 1982, 1983, 1985, 1986, 1988–2004(c)	"How often do you spend a social evening with friends who live outside the neighborhood? Almost every day, once or twice a week, several times a month, several times a year, about once a year, or never?"
Size of Discussion Network	1985, 1987 (c)	"From time to time, most people discuss important matters with other people. Looking back over the last six months, who are the people with whom you discussed matters important to you?" Record of the total number of people listed.

[a] Item administered to all respondents.
[b] Item administered to all respondents, except in 2002 and 2004, when item was administered to half.
[c] Item administered to a sub-sample.

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